

QUESTIONS AND ANSWERS

L. F.B. (Auckland): How could I add a hum-bucking coil to my home-built dynamic speaker, constructed from details published in the "Radio Record" several years ago?

A.: If you have sufficient room, a hum-bucking winding could be put on quite easily around the voice coil. It should be in series with the latter and have exactly the same number of turns, though it should be wound in the opposite direction.

"WAITSEE" (Wellington): A friend of mine has an a.c. set—the "Link Three"—described in the "Radio Times" about two years ago. He now wishes to build the "Skyline Five." Would it be possible to use the by-pass condensers of the former set when making the latter?

A.: You could use the condensers you list as follows: Three .01mfd., C2, C6, C8; two .2mfd., C3, C7; one .05mfd., C9; one .05mfd., C4. After the set has been built you could use the 3mfd. condenser to replace either C2 or C8, if a temporary substitution shows that results are improved.

"2B7" (Auckland): I have a five-valve set which when first bought gave excellent bass reproduction. Now, however, the bass seems to be considerably weaker. The valves have all been tested and are in good order.

A.: Is the tone control still operating? If not, then there is a possibility that the tone control condenser is "open." In this case the treble response would be accentuated, thus making the bass sound weaker in comparison. Another possibility is that the fixed condenser across the 2A5 bias resistor is defective. Note: Early copies of the "Radio Record" are still procurable, from Box 1680, Wellington.

D. T. (Christchurch): If your receiver is giving you entire satisfaction, and is not unstable in any way, then its performance would not be improved by rebuilding it on a metal chassis, or by using a gang in place of the three separate condensers at present in the set. Single dial operation is, of course, much more convenient, though it is no more efficient.

[Many thanks for your suggestion, but unfortunately the Post and Telegraph Regulations require that every page bears the day and date of publication. Glad to know you enjoy "Questions and Answers."
—Tech. Ed.]

"THANK YOU" (—): I have built up the "1934 Crystal Amplifier" described in the "Radio Guide," and am very pleased with its performance, there being nothing wanting in regard to tone or volume. However, there is a rather too prominent a.c. hum in the speaker. How can I remedy this? When I first turned the set on, the hum level was low for a while. Then a click was heard, and immediately the hum became much more pronounced, while no signals came from the amplifier. This has occurred on several occasions, but each time the fault has righted itself without any intervention on my part.

A.: This sounds as though one of the electrolytics has developed a leak, but if this is the case, then you could expect a

spluttering from the speaker, the intensity depending on the degree of breakdown. Also, the click which occurs occasionally, followed by no signal, seems to indicate an open grid circuit somewhere, or a defective bypass condenser across either the 56 or 2A5 self-bias resistors. Did you make sure to connect the dry electrolytic condenser in the correct way? The end painted red should be connected to the cathode of the 2A5. Try earthing the grid of the 2A5 to the chassis. If the

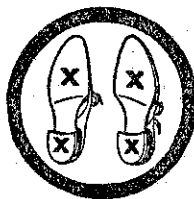
hum does not cease then this shows that it is arising either from the power supply or from the speaker. Incidentally, it might be worth while to try the effect of reversing the connections to the primary of the speaker input transformer.

2.: Should the earth lead be connected to the chassis of the amplifier as well as to the earth terminal of the crystal set?

A.: Yes, the chassis of the amplifier should be earthed. You will probably find (Continued on page 45).



WE NEED 4 SUPPORTS

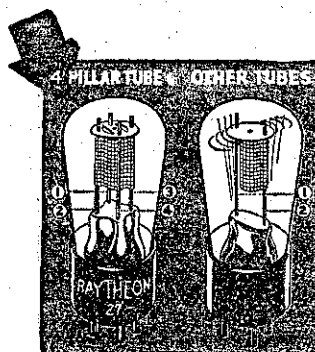


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